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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/521,564

09/08/2005

Kenji Sakuda

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72875

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06/08/2009

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EXAMINER

HON, MING Y

ART UNIT

PAPER NUMBER

2625

NOTIFICATION DATE

DELIVERY MODE

06/08/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/521,564	<b>Applicant(s)</b> SAKUDA ET AL.	
	<b>Examiner</b> MING HON	<b>Art Unit</b> 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's amendment filed on April 24, 2009 is acknowledged. Currently Claims 1-13 are pending. Claims 1 and 11-13 has been amended.

In regards to Applicant's remarks, the applicant amended Claim 1 to recite, "the print job data pertaining to a given print job comprises an indication of a plurality of objects." The applicant also asserts that Suzuki failed to teach "print job data indicating a plurality of objects" because the fractional sets of band data are all part of the same object and not different objects.

The examiner respectfully disagrees. Suzuki stated "data transmission means which divide the thus-prepared print data pertaining to a single job into a plurality of fractional data sets." (Suzuki, Column 1, Lines 65-66) The examiner states that the fractional sets of band data are a plurality of objects or in the claim language, the print job data pertaining to a print job data comprises and indication of plurality of objects. It is considered an object because each set is transmitted on an individual basis. The term "plurality of objects" in its broadest reasonable interpretation allows the examiner to interpret it as fractional sets of band data. Also the objects are different from each other because each set represent a separate set of band data.

Applicant asserted that Suzuki failed to teach update job status information with respect to when job status information is received for any one of a plurality of objects. Examiner stated above that the plurality of objects is considered to be the fractional set of data; Suzuki stated that after transmission of data to printer, a status is sent back to the user indicating the status of or error of the printer, (Suzuki, Column 2, Lines 4-9) Since the data is being continuously sent, set by set, the status is updated continuously until the last fractional set of band data is sent.

Applicant asserted that Suzuki does not teach the concept of selecting of objects. Examiner respectfully disagrees as the Examiner stated above that the plurality of objects is

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considered to be the fractional set of data. The objects are fractional sets of data, the selection process will occur inherently when resuming transmission of the print job require selecting the fractional sets of band data that has not been sent yet or sent correctly. This is seen in Suzuki, Figure 11.

A print job as stated by Suzuki contains multiple pages as implied in Suzuki, Column 13, Line 8-12, each page implies that there are more than one page. If there are multiple pages to be printed and a solution to the (2) print result errors is to print the same page from the beginning. Therefore the selected band data will be band data associated with the page to be reprinted. For example if there are two pages and the error occur on the second page then only the band data associated with the second page will be selected to be resumed. The applicant is assuming that the print job only contains one page and if the print job contains only page then the applicant's statement in regards to Suzuki always selects all the bands of a page for reprinting. However the applicant is incorrect, the print job contains multiple pages therefore will be selecting all the bands of a page for reprinting but not all the bands of the pages of the print job for reprinting.

Examiner's remarks above also apply to independent claims 2 and 11-13.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

**Claims 1-3, 5, 8-9, and 11-13 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Suzuki USPN 6549947.**

**As per Claim 1**, Suzuki teaches in the context of a printing system comprising one or more host apparatuses sending print job data containing a plurality of objects; and one or more printers carrying out printing of the plurality of objects based on the print job data from host apparatus or apparatuses, (Suzuki, Column 1, Lines 45-48) a printing system comprising:

a first storage storing the print job data wherein the print job data pertaining to a given print job comprises an indication of plurality of objects; (Suzuki, Column 1, Lines 50-53 and Column 1, Lines 65-66) The examiner states that the fractional sets of band data are a plurality of objects or in the claim language, the print job data pertaining to a print job data comprises and indication of plurality of objects.)

a job status monitor for creating job status information for each one of the objects by monitoring operations carried out by the printer or printers in connection with printing of the plurality of objects; wherein when job status information is received for any one of the plurality of objects of a given print job, the job status information is updated as to provide updated job status information stored in a second storage. (Suzuki, Figure 1, Component 9 and Column 1, Lines 53-58 and Figure 1, Component 9 and Column 14, Lines 45-55; when the status is sent to the monitor unit, the monitor unit needs some type of memory or storage unit to either permanently store or temporarily store the status data. Column 2, Lines 4-9; since the data is being continuously sent, set by set, the status is updated continuously until the last fractional set of band data is sent.)

a controller performing a determining function including responding, to a printing error indication with respect to one of the plurality of objects, by determining whether the printer or printers has or have recovered from one or more printing error states to one or more states permitting printing; (Suzuki, Column 14, Lines 45-55)

the controller, in the event that it is determined that the printer or printers has or have recovered to the state or states permitting printing, selecting one or more objects from among the plurality of objects based on the print job data stored at the first storage means and the updated job status information stored at the second storage means, and causing resumption of printing of the selected object or objects. (Suzuki, Column 14, Lines 45-55 and Column 11, Lines 44-49;

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resuming of transmitting the print data will also resume printing since the printing mechanism is sending data to printer and printing it.)

**As per Claim 2**, Suzuki teaches a printing method comprising:

one or more steps in which print job data containing a plurality of objects is sent from one or more host apparatuses to one or more printers; (Suzuki, Column 1, Lines 45-48)

one or more steps in which printing of the plurality of objects is carried out at one or more printers based on the print job data from host apparatus or apparatuses; (Suzuki, Column 1, Lines 45-48 and Column 2, Lines 9-11; splits the print data to multiple objects or parts)

one or more steps in which the print job data is stored; (Suzuki, Column 1, Lines 50-53)

one or more steps in which operations carried out by the printer or printers in connection with printing of the plurality of objects are monitored and job status information is created for each one of the objects; (Suzuki, Figure 1, Component 9 and Column 1, Lines 53-58)

one or more steps in which the created job status information is stored; Suzuki, Figure 1, Component 9 and Column 14, Lines 45-55; when the status is sent to the monitor unit, the monitor unit needs some type of memory or storage unit to either permanently store or temporarily store the status data)

one or more steps in which, in the event of occurrence of one or more printing errors during printing of the plurality of objects at the printer or printers, determination is made as to whether after occurrence of the printing error or errors the printer or printers has or have recovered from one or more printing error states to one or more states permitting printing; (Suzuki, Column 14, Lines 45-55)

and one or more steps in which, in the event that it is determined that the printer or printers has or have recovered to the state or states permitting printing, one or more objects is or are selected from among the plurality of objects based on the stored print job data and the stored job status information, and printing of the selected object or objects is resumed. (Suzuki, Column 14, Lines 45-55 and Column 11, Lines 44-49; resuming of transmitting the print data will also resume printing since the printing mechanism is sending data to printer and printing it.)

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**As per Claim 3**, Suzuki teaches a printing method according to claim 2 wherein, at the step or steps in which printing is resumed, in the event that it is determined that the printer or printers has or have recovered to the state or states permitting printing, printing of the selected object or objects is automatically resumed. (Suzuki, Column 14, Lines 45-55)

**As per Claim 5**, Suzuki teaches a printing method according to claim 2 wherein the step or steps in which the print job data is stored and the step or steps in which the job status information is stored are carried out by the host apparatus or apparatuses. (Suzuki, Figure 1, Components 1, 7, and 9; the components where the claimed functions occur inside the host apparatus)

**As per Claim 8**, Suzuki teaches a printing method according to claim 5 further comprising: one or more steps in which the stored job status information is retained by the host apparatus or apparatuses at least until printing of the print job data is completed; (Suzuki, Column 1, Lines 55-60)

and one or more steps in which, in the event that it is determined that the printer or printers has or have recovered to the state or states permitting printing, the print job status information and the print job data stored by the host apparatus or apparatuses are sent from the host apparatus or apparatuses to the printer or printers; (Suzuki, Column 14, Lines 45-55)

wherein, at the step or steps in which printing is resumed, the printer or printers select one or more objects for which printing has not yet been completed from among the plurality of objects based on the job status information and the print job data from the host apparatus or apparatuses, and resume printing of the object or objects for which printing has not yet been completed. (Suzuki, Column 14, Lines 45-55)

**As per Claim 9**, Suzuki teaches a printing method according to claim 5 wherein: in the event that the printing error or errors occur due to one or more reasons attributable to the host apparatus or apparatuses, the step or steps in which job status information is stored is or are

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carried out by the printer or printers; (Suzuki, Column 13, Lines 66-67 and Column 14, Lines 1-14)

and the printing method further comprises one or more steps in which, in the event that the reason or reasons attributable to the host apparatus or apparatuses has or have been corrected and it is determined that the printer or printers has or have returned to one or more states permitting printing, the job status information stored by the printer or printers is sent from the printer or printers to the host apparatus or apparatuses. (Suzuki, Column 13, Lines 66-67 and Column 14, Lines 1-14)

**As per Claim 11**, Suzuki teaches a host apparatus sending print job data containing a plurality of objects to one or more printers and causing printing to be carried out, the host apparatus (Suzuki, Figure 1, Component 1) comprising:

a first storage storing the print job data; (Suzuki, Figure 1, Component 7, receives print data therefore would store the data before sending it to the print monitor)

a second storage storing job status information for each one of the objects, the job status information being created based on operations carried out by the printer or printers in connection with printing of the plurality of objects; (Suzuki, Figure 1, Component 9 and Column 14, Lines 45-55)

a determining element for, in the event of occurrence of one or more printing errors during printing of the plurality of objects at the printer or printers, determining whether after occurrence of the printing error or errors the printer or printers has or have recovered from one or more printing error states to one or more states permitting printing; (Suzuki, Column 14, Lines 45-55)

a resumption instruction element for, in the event that it is determined that the printer or printers has or have recovered to the state or states permitting printing, controlling the printer or printers so as to cause resumption of printing of one or more objects selected from among the plurality of objects based on the print job data and the job status information, this having been



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permitted as a result of sending of the print job data stored at the first storage means and the job status information stored at the second storage means to the printer or printers. (Suzuki, Column 14, Lines 45-55 and Column 11, Lines 44-49; resuming of transmitting the print data will also resume printing since the printing mechanism is sending data to printer and printing it.)

**As per Claim 12**, Suzuki teaches a printer receiving print job data containing a plurality of objects from one or more host apparatuses and carrying out printing thereof (Suzuki, Figure 1, Component 3), the printer comprising:

a job status monitoring element job status information for each one of the objects by monitoring operations carried out by the printer or printers in connection with printing of the plurality of objects, and for sending the created job status information to the host apparatus or apparatuses (Suzuki, Column 1, Lines 58-62);

a determining element for, in the event of occurrence of one or more printing errors during printing of the plurality of objects, determining whether after occurrence of the printing error or errors the printer or printers has or have recovered from one or more printing error states to one or more states permitting printing; (Suzuki, Column 14, Lines 45-55)

a print resuming element for, in the event that it is determined that the printer or printers has or have recovered to the state or states permitting printing, receiving the print job data and the job status information from the host apparatus or apparatuses, selecting one or more objects from among the plurality of objects based on the print job data and the job status information, and resuming printing of the selected object or objects. (Suzuki, Column 14, Lines 45-55 and Column 11, Lines 44-49; resuming of transmitting the print data will also resume printing since the printing mechanism is sending data to printer and printing it.)

**As per Claim 13**, Suzuki teaches a computer readable medium storing a program for causing one or more computers to execute a method in which print job data containing a plurality

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of objects is sent to one or more printers and printing is caused to be carried out (Suzuki, Column 1, Lines 45-48 and Column 4, Lines 16-24), the method comprising:

one or more steps in which the print job data is stored; (Suzuki, Column 1, Lines 50-53)

one or more steps in which job status information for each one of the objects is stored, the job status information being created based on operations carried out by the printer or printers in connection with printing of the plurality of objects; (Suzuki, Figure 1, Component 9 and Column 1, Lines 53-58)

one or more steps in which, in the event of occurrence of one or more printing errors during printing of the plurality of objects at the printer or printers, determination is made as to whether after occurrence of the printing error or errors the printer or printers has or have recovered from one or more printing error states to one or more states permitting printing; (Suzuki, Column 14, Lines 45-55)

and one or more steps in which, in the event that it is determined that the printer or printers has or have recovered to the state or states permitting printing, the printer or printers is or are controlled so as to cause resumption of printing of one or more objects selected from among the plurality of objects based on the print job data and the job status information, this having been permitted as a result of sending of the stored print job data and the stored job status information to the printer or printers. (Suzuki, Column 14, Lines 45-55 and Column 11, Lines 44-49; resuming of transmitting the print data will also resume printing since the printing mechanism is sending data to printer and printing it.)

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 4, 7, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki USPN 6549947 hereinafter referred to as Suzuki as applied to Claims 2 and 5 and further in view of Wanda USPN 6474881.**

**As per Claim 4**, Suzuki teaches a printing method according to claim 2, and at the step or steps in which printing is resumed, one or more objects for which printing has not yet been completed is or are selected based on the job status information and the print job data, and printing of the object or objects for which printing has not yet been completed is resumed. (Suzuki, Column 14, Lines 45-55 and Column 11, Lines 44-49; resuming of transmitting the print data will also resume printing since the printing mechanism is sending data to printer and printing it.)

Suzuki does not teach wherein: the job status information includes object identification information for specifying one or more objects subject to printing and information indicating one or more numbers of the object or objects subject to printing which has or have already been printed; However Wanda teaches it. (Wanda, Column 13, Lines 30-55 and Figure 18, job status of pending jobs are shown as a group management table)

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of Wanda into Suzuki. Suzuki teaches the ability to resume printing of incomplete print jobs but failed to display attributes of print jobs being spooled and the status of the individual jobs including priority within the jobs. The job management table is beneficial to the user to show finished and pending jobs and indicate the user the progress of all pending jobs so the user can be made aware of the progress of the print jobs.

Therefore it would have been obvious to one of ordinary skill to combine the two references to obtain the invention in Claim 4.

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**As per Claim 7**, Suzuki teaches a printing method according to claim 5.

Suzuki does not teach wherein: the print job data includes one or more image files, and one or more print specification files specifying one or more manners of printing the image file or files; and at the step or steps in which the job status information is stored, the job status information is recorded in the print specification file or files; However Wanda teaches it. (Wanda, Column 13, Lines 30-55 and Figure 18; the print job management table is stored as a file. The manners of printing the image file or files are considered to be the print order, or where it is being spooled. This print job management table can be updated and stored on a memory which can be considered as the table being stored as a file

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of Wanda into Suzuki. Suzuki teaches the ability to resume printing of incomplete print jobs but failed to display attributes of print jobs being spooled and the status of the individual jobs including priority within the jobs. The job management table is beneficial to the user to show finished and pending jobs and indicate the user the progress of all pending jobs so the user can be made aware of the progress of the print jobs.

Therefore it would have been obvious to one of ordinary skill to combine the two references to obtain the invention in Claim 7.

**As per Claim 10**, Suzuki in view of Wanda teaches a printing method according to claim 4 wherein: the print job data includes one or more image files, and one or more print specification files specifying one or more manners of printing the image file or files; the print specification file or files contains or contain information specifying how many sets of prints are to be printed, and path information indicating where the image file or files are stored; (Wanda, Column 13, Lines 30-55 and Figure 18; the print job management table is stored as a file. The manners of printing the image file or files is considered to be the print order, or where it is being spooled. This print job management table can be updated and stored on a memory which can be considered as the table being stored as a file)

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and the object identification information included in the job status information is made up of one or more portions of the path information for the image file or files which is or are associated with the object or objects subject to printing. (Wanda, Figure 18, Component 1604, path information is considered where the job is spooled)

Analysis is analogous to that made in Claim 4.

**Claims 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki USPN 6549947 hereinafter referred to as Suzuki as applied to Claim 5 and further in view of Teng et al. USPN 6327045 hereinafter referred to as Teng.**

**As per Claim 6,** Suzuki teaches a printing method according to claim 5.

Suzuki does not teach wherein the print job data and the job status information are stored on one or more rewritable recording media removably installed at the host apparatus or apparatuses; However Teng teaches it. (Teng, Column 4, Lines 24-29)

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of Teng into Suzuki. Teng teaches the host apparatus that has the ability to record and read rewritable recording medium such as a removable optical disk. The purpose of the removable medium is to make data portable and easily transferred or used at a different apparatus. The data can be job status data or print management file.

Therefore it would have been obvious to one of ordinary skill to combine the two references to obtain the invention in Claim 6.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MING HON whose telephone number is (571)270-5245. The examiner can normally be reached on Mon- Fri 7:30 to 5:00 EST; 1st Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark K. Zimmerman can be reached on (571)272-7653. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. H./

Examiner, Art Unit 2625

/Mark K Zimmerman/

Supervisory Patent Examiner, Art Unit 2625